SELECTING DATA COLLECTION METHODS AND PREPARING CONTRACTOR SCOPES OF WORK

A.I.D. Program Design and Evaluation Methods Report # 3
(Document Order No. PN-AAL-057)

February 1985

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TABLE OF CONTENTS

1. Introduction

2. Selecting a Data Collection Method

   2.1 Description of Four General Data Collection Approaches
      2.1.1 Representative Methods
      2.1.2 Intermediate Methods
      2.1.3 Case-Study Methods
      2.1.4 Secondary Methods
      2.1.5 Combining Data Collection Approaches
   2.2 Selection Criteria
      2.2.1 Characteristics of Data and Method
      2.2.2 Characteristics of the Population
      2.2.3 Practical Considerations
   2.3 Selecting a Data Collection Method
      2.3.1 Representative Methods
      2.3.2 Intermediate Methods
      2.3.3 Case-Study Methods
      2.3.4 Secondary Methods
      2.3.5 Matching Method and Purpose
   2.4 Budgeting Data Collection Activities

3. Main Components of a Scope of Work for Data Collection

   3.1 Background and Purpose
   3.2 Study Questions

3.3 Study Approach
3.4 Special Skills
3.5 Time Frame
3.6 Reporting Requirements
3.7 Deliverables

4. Scopes of Work for Representative Methods

4.1 Scopes of Work for Sample Surveys
4.1.1 Background and Purpose of the Study
4.1.2 Questions to Address
4.1.3 Study Approach
4.1.4 Special Skills
4.1.5 Time Frame
4.1.6 Reporting Requirements
4.1.7 Deliverables

4.2 Scopes of Work for a Census
4.2.1 Background and Purpose of the Study
4.2.2 Questions to Address
4.2.3 Study Approach
4.2.4 Special Skills
4.2.5 Time Frame
4.2.6 Reporting Requirements
4.2.7 Deliverables

5. Scopes of Work for Intermediate Methods

5.1 Purpose of the Study
5.2 Questions to Address
5.3 Study Approach
5.4 Special Skills
5.5 Time Frame
5.6 Reporting Requirements
5.7 Deliverables

6. Scopes of Work for Case-Study Methods

6.1 Background and Purpose of the Study
6.2 Questions to Address
6.3 Study Approach
6.4 Special Skills
6.5 Time Frame
6.6 Reporting Requirements
6.7 Deliverables

7. Scopes of Work for Secondary Analyses

7.1 Background and Purpose of the Study
7.2 Study Questions
7.3 Study Approach
7.4 Special Skills
7.5 Time Frame
7.6 Reporting Requirements
7.7 Deliverables

Appendix

A. Summary Chart of Suggested Deliverables

1.0 INTRODUCTION

These guidelines were written to help Agency for International Development (AID) program and project managers select data collection and analysis methods that best meet their information needs within realistic time and cost constraints. The guidelines describe four major data collection alternatives and the criteria for selecting among them. The guidelines also provide model scopes of work for each data collection method, including suggested wording to assure that documented data sets and other important deliverables are received under contracts.

The guidelines will not transform AID managers into data collection and analysis experts, and most managers will still require technical assistance in completing data collection and analysis plans. However, the guidelines should help project managers select data collection strategies that obtain needed information as cheaply and expeditiously as possible, while also ensuring that final data sets remain available for future use..

2.0 SELECTING A DATA COLLECTION METHOD

The manager's first step in planning a data collection activity is to specify the kind of information needed and its proposed uses. Although information needs will vary greatly from project to project, planning should always result in a clear statement of the questions to be answered and the variables to be measured. Without a clear statement of purpose and focus, there is little likelihood of obtaining needed information.

Once study questions have been formulated, managers should select a general data collection approach. Section 2.1 describes four major alternatives: representative methods, intermediate methods, case-study methods, and secondary methods. Section 2.2. clarifies the differences among these methods, including their particular strengths and weaknesses. Section 2.3 suggests some criteria for choosing among the methods and discusses which methods are best suited to which common information needs.

2.1 Description of Four General Data Collection Approaches.

The following sections provide an overview of four general data collection approaches: representative methods, intermediate methods, case-study methods, and secondary methods. Each of these methods encompasses numerous variants, and AID managers will usually leave the choice of a specific study design (e.g., particular survey, sampling or analytical techniques) to technical experts.

2.1.1 Representative Methods.

Representative methods, such as censuses and sample surveys, are used to collect information about a population (e.g. women, small farms, urban workers, medical clinics, villages) in ways that provide precise estimates of the characteristics of the population, with known likelihoods of error. Whereas censuses collect data from all members of a population, sample surveys collect data from statistically representative cases (individuals, farms, businesses, etc.) selected through random sampling techniques to ensure that each member of the population has an equal or known probability of being included. Representative methods also use systematic data collection procedures that maximize comparability across cases and minimize the subjective bias of data collectors.

2.1.2 Intermediate Methods

Intermediate methods collect information about a population in ways that do not permit precise estimates of population characterisics with known likelihoods of error. Cases, in other words, are not selected randomly and do not have an equal or known probability of being included. Intermediate methods are "quasi-statistical," in that the samples are intended to reflect larger populations and to permit comparisons of key differences among groups, communities, businesses or other units. Cases may be selected purposively to meet specified criteria (e.g., farmers of less than 5 acres, villages with wells) or they may be selected through membership in natural (or "accidental") units (e.g., classes in a school or patients in a clinic). Intermediate methods may also use less precise measures, such as presence/absence indicators, yes/no responses, or ordinal rankings (e.g. high, medium, and low), provided these measures are sufficient for key comparisons.

A hypothetical evaluation of a water and sanitation project might help to clarify the differences between intermediate and representative methods. Evaluators using representative methods might begin by listing all of the households in the relevant geographic area. Detailed data

on health status and other pertinent factors would be collected before and after project implementation for random samples of households that received and did not receive project services. Assuming no intervening factors, the evaluators would conclude that any statistically significant differences between households receiving and not receiving project services had resulted from project interventions.

Evaluators using an intermediate approach might, on the other hand, collect data from only a few villages purposively selected to include major variations within the project area (e.g., different ethnic groups, different farming systems, different access to clinics). Instead of collecting data from randomly selected households, evaluators might interview key informants (such as village leaders, village health workers, or clinic users) about health conditions, the use and maintenance of water and sanitation systems, or perceptions of health service improvements. Simpler measures might also be used, and additional data could be obtained through direct observation of project activities. In short, an intermediate approach would be used to collect simpler data from a variety of purposively selected sources as a basis for broad comparisons.

Intermediate methods might be selected because they are cheaper and quicker than representative methods, because precise estimates of population characteristics are unnecessary, or because random selection of cases is difficult or impossible. If data are interpreted conservatively, intermediate methods can fill many of AID's information needs.

2.I.3 Case-Study Methods

Case-study methods collect detailed, often descriptive, data from a limited number of cases. Cases are selected purposively to gain insights into the organization and functioning of a community, a business, a social group, or any other natural unit. Multiple cases may be chosen to contrast significant differences -- for example, to compare a fishing village, a lowlands rice producing village, and a mixed-cropping uplands village.

Case studies are sometimes criticized because they do not collect representative data, but this is not their purpose. Many of AID's information needs can best be filled with case-study data. Some topics, such as village politics or household social organization, are difficult to quantify and are only understandable in relation to larger social, cultural, and economic settings. Other topics, such as project implementation or technology transfer, involve complex processes for which case studies can

provide especially useful insights. Effective project implementation, for example, requires an understanding of the workings and capabilities of host government agencies that often can be gained only through informal interviews and participant observation.

2.1.4 Secondary Methods

Secondary methods use existing data (e.g. census data, clinic records) that were collected for other purposes as the basis for new analyses. AID, for example, increasingly reanalyses national aggregate statistics as a basis for program or sector planning. Useful secondary data can be obtained from a wide range of sources. Routine records and periodic reports from businesses, clinics, government agencies, or other public or private institutions often can be used, for example, to assess service delivery, cost-effectiveness, or staff performance.

Secondary methods can be used whether the original data were collected with representative, intermediate, or case-specific methods. Secondary analyses can examine new variable relationships, can aggregate or disaggregate data in new ways, can combine related but previously separate data, or can even construct new quantitative indicators through content analyses or case surveys of qualitative information. Secondary methods are also an important, and sometimes the only, source of longitudinal data about changes in variables or conditions over time.

Because secondary data were originally collected by other people for other purposes, their validity, accuracy and relevance should be carefully assessed by experts. Still, if good data are available, secondary methods are often the quickest and cheapest source of information. An appraisal of available secondary data is therefore an appropriate first step in many data gathering activities.

2.1.5 Combining Data Collection Approaches

Different data collection approaches can often be combined within a single study. A case study of village politics might, for example, include representative surveys of socioeconomic status or political party affiliation within village boundaries. A representative survey of national agricultural practices might include case studies of alternative farming systems to help researchers interpret statistical data. In addition, secondary methods can often usefully supplement primary data collection activities.

Exploratory case studies are often important precursors

to representative surveys. Unless such surveys ask culturally appropriate questions, the answers -- no matter how well analyzed -- will be misleading. In some societies, for example, counting children or animals, reporting income, or mentioning sexually-related matters is considered improper or dangerous. Other cultures might define income, ownership, production, kinship, or innumerable other "facts" in ways that might differ from what survey researchers expect. Exploratory case studies can clarify local social and cultural contexts and ensure that surveys are accurate and unbiased.

2.2 Selection Criteria

The choice of a data collection strategy -- the use of representative, intermediate or case-study methods -- is influenced by the kind of data needed, the nature of the data collection setting, and the uses to which the data will be put. Some of the most important factors to be considered are outlined below:

2.2.1 Characteristics of Data and Method

Representativeness. Representativeness refers to the extent to which data accurately mirror the characteristics of some larger population of interest. Some form of probability sampling with random selection of cases is necessary to determine precisely the representativeness of a sample. More representative data are not, however, necessarily more useful. Usefulness depends upon the extent to which the data meet the infomation and decision needs for which they were collected.

Quality. The quality of data is primarily determined by how data are measured. Different dimensions of data quality include (1) validity, or the extent to which data measure what they purport to measure; (2) reliability, or the extent to which repeated measures of the same phenomena will yield the same results; and (3) precision, or the fineness of the distinctions that can be measured.

The quality of data is not the same as the representativeness of data. Although representative data are often measured more carefully than intermediate or case-study data, all of the methods can be used to collect data with higher or lower validity, reliability and precision. Regardless of the method, higher quality data are usually more expensive to collect than lower quality data.

Replicability. Replicability refers to the extent to which a method can be repeated at a future date or in a

similar setting to collect comparable data. Althogh all of the data collection methods can be replicated, representative and intermediate methods rely on formal survey questionnaires that are usually easy to readminister, whereas case studies rely on informal interviews and fieldwork that are more difficult to duplicate precisely. Replicability is especially important for longitudinal studies that envision multiple rounds of data collection.

Potential for Secondary Analysis. This refers to the data's potential for future reanalysis to meet additional information needs. Although any data can be reanalyzed after they are collected, the kind of analysis possible depends in part on the data collection method used.

Representative data can be reanalyzed through a variety of statistical techniques limited only by the scope of the original survey questions and the sampling frame. Statistical analyses of intermediate data are constrained by use of non-random sampling schemes, which limit the value of statistical tests for significance of differences among population subgroups. Secondary analysis of case-study data most often focuses on qualitative reappraisals of case materials, although if numerous relevant case studies are available, quantitative "case surveys" summarizing the characteristics of these case studies are possible.

Specificity. The specificity of the data refers to the breadth of the questions that the data address. In general, representative methods are more applicable to concise and focused study questions (or to questions that can be so operationalized). Intermediate or case-study methods are better suited to broad or exploratory questions, especially if they can be investigated within a small range of specific settings.

2.2.2 Characteristics of the Population

Heterogeneity. The heterogeneity of the population refers to the degree of variation within the population for the variables being considered. In addition to other factors of interest, AID policy requires the collection of data that is disaggregated by gender so that the implications of gender differences for social and economic development can be analyzed.

The collection of gender-disaggregated data, especially data on intrahousehold dynamics, is particularly important for the analysis of economic activities. Past studies have frequently misreported women's economic activities by excluding the production of goods and services not actually

sold on the market; by ignoring economic activities that are home-based, seasonal, or that otherwise fail to conform to standard data collection reference periods; and by too easily accepting denials that women "work" that are based on culturally derived status considerations.

All three approaches can be used to collect useful, but very different, information about heterogeneous populations, including gender-disaggregated data. Representative methods can provide precise estimates of the extent of variaton in a heterogeneous population; intermediate methods can delineate the range of variation but provide only cruder approximations of its extent; case-study methods can describe specific variants in great detail, but only within particular settings and with no assurance that the entire range of variation has been captured.

Geographic Dispersion. Geographic dispersion refers to the extent to which the relevant population is concentrated in particular locations or dispersed across the countryside. Case study methods are best applied when the population is grouped in natural units -- villages, businesses, schools, or the like. Intermediate and representative methods are better suited to collecting data from broadly dispersed, heterogeneous populations that lack natural groupings. Whatever the method, the cost of data collection will generally be higher if the population is widely dispersed.

2.2.3 Practical Considerations

Expediency. Expediency refers to the amount of time it will take to collect and analyze the required data. All three methods can be implemented faster or slower. However, representative methods generally require more elaborate, time-consuming sampling procedures and field operations than do intermediate methods or case studies.

Host Country Capabilities and Needs. Host country personnel often play key roles in data collection and analysis, and host country capabilities and needs are important considerations when selecting a data collection and analysis method. All three primary data collection methods require substantial, but quite different, technical expertise. However, representative methods generally require the training and use of more extensive data collection and analysis staffs.

Cost. Collecting more data or higher quality data increases costs. Given limited funding, managers must make

trade-offs in choosing the most satisfactory method given available resources.

Table l summarizes all of these selection criteria.

Table_1
Summary of Selection Criteria

Criteria	Representative Methods	Intermediate Methods	Case-Study Methods
DATA CHARACTERISTICS			
Representativeness	yes	limited	no
Quality	variable	variable	variable
Replicability	well suited	possible	limited
Secondary Analysis	well suited	possible	limited
Specificity of Questions	narrow	broad	broad
POPULATION CHARACTERISTICS			
Heterogeneity	accurate estimates	rough approximation	detailed descriptions
Dispersion	yes, but expensive	yes	limited
PRACTICAL CONSIDERATIONS			
Expediency	less expedient	expedient	can be expedient
Host Country Capabilities	larger requirements	smaller requirements	smaller requirements
Cost	usually higher	varies	usually lower

2.3 Selection of a Data Collection Method

The following sections summarize the advantages and disadvantages of the major data collection alternatives,

given the selection criteria described above.

2.3.1 Representative Methods

The major advantage of representative methods is that they provide accurate estimates of the characteristics of a population of interest. Representative data are typically well suited for secondary analysis; national censuses and large surveys, for example, are usually designed for multiple uses from the start. Sample surveys and censuses also can describe large heterogeneous populations dispersed over large geographic areas. Representative methods can be used to collect data relevant to narrow or broad issues, but usually rely on survey techniques that require specific operationalized questions so that comparable data can be collected by different enumerators from a wide range of respondents. Representative methods usually require more time and resources than other methods. They also typically require relatively large data collection staffs with a level of experience and expertise that may be unavailable in a developing country or necessitate a substantial investment in staff training.

REPRESENTATIVE METHODS ARE MOST APPROPRIATE WHEN

l) Statistically accurate estimates of population characteristics are needed.

2) Statistical (generally random) sampling is possible.

3) Data can be collected through specific (usually quantifiable) survey questions administered by field enumerators in diverse settings.

4) Secondary analyses or multiple rounds of data collection are anticipated.

Given these conditions,

-- Sample surveys are usually more appropriate when the population is large or dispersed and when data are not required from each populaton member.

-- Censuses are usually more appropriate when the population is sufficiently small, when data are required from each member of the population, when labor is inexpensive, when questions are few and simple, or when statistical skills are limited.

2.3.2 Intermediate Methods

Intermediate methods provide data that are not statistically representative but which can still provide useful indications of population characteristics. Intermediate methods can be used to collect data that are measured as validly, reliably and precisely as data collected with representative methods, but more often intermediate methods are used to collect simpler data to address broader research questions and define future research issues. A key advantage of intermediate methods is that they tend to be less expensive than representative methods and better suited to the capabilities of developing countries. Althogh data collected with intermediate methods should be interpreted cautiously, intermediate methods are often a useful compromise between representative and case-study approaches and can combine useful features of both.

INTERMEDIATE METHODS ARE MOST APPROPRIATE WHEN

1. Statistical representativeness is unnecessary, although a rougher indication of population characteristics may be desirable.

2. Comparisons among major groups or categories are sufficient to meet information needs.

3. A limited budget precludes statistically representative surveys or censuses.

4. Limited host country capabilities or adverse local conditions make intermediate methods more practical.

2.3.3 Case Study Methods

Case-study methods are not intended to collect data that are statistically representative of some larger population. Case studies are best suited for data collection on specific groups, organizations, or other natural units for which the primary goal is to describe the characteristics or functioning of these units. Although case-study methods can collect valid and useful data within particular settings, they are particularly well suited for collecting qualitative information about complex processes or phenomena. Case-study methods can address broad or narrow research questions, but only within the framework of a single case or a limited set of case comparisons. They are often used for exploratory investigations that identify key factors to guide later, more extensive data collection efforts using intermediate or representative methods. Like intermediate methods, case-study methods also offer expediency and cost advantages and place limited demands on host country staff.

CASE-STUDY METHODS ARE MOST APPROPRIATE WHEN

1. Statistically representative data are unneccesary or are difficult or impossible to collect.

2. Information is needed on a relatively small, homogeneous population or on identifiable groups within a larger, heterogeneous population.

3. Intensive information is needed on a topic rather than extensive data on a population.

4. Useful data are primarily qualitative or are only quantifiable in a limited way.

5. Cost and expediency considerations preclude the use of alternatives.

2.3.4 Secondary Methods

Secondary methods can be used to examine new relationships among variables using data that were originally collected using representative, intermediate, or case-study methods. Secondary methods can be used to disaggregate or reaggregate previously collected raw data. They can be used to analyse data from a variety of organizational records or routine monitoring activities. They can be used to reanalyze the content of individual case studies or to quantitatively summarize the characteristics of collections of cases.

In general, secondary methods can be used to do anything that can be done with primary data, if appropriate data are available. When information needs can be met with secondary methods, this method will usually be cheaper and quicker than collecting primary data. An assessment of secondary data sources should therefore be a first step in most data collection activities.

2.3.5 Matching Method and Purpose

Managers should choose the data collection methods that provide the information needed for making decisions as cheaply and expeditiously as possible. Program planning, sector analysis, and policy development often use representative or intermediate data to assess sector or population characteristics and to provide the basis for quantitative comparisons. Most project-level feasibility, design, monitoring, planning, and evaluation studies, however, rely on case-study or intermediate data that provide detailed, but not necessarily representative,

information on target population needs, project performance, service delivery, and project impact. Evaluations of major pilot or demonstration projects are more likely to collect representative data as part of rigorous research designs to assess project impacts as a basis for future funding decisions. In practice, most data collection activities combine a variety of methods. Evaluations of pilot projects, for example, may use supplementary intermediate or case-study data collection methods for detailed examinations of project implementation, service delivery, and beneficiary participation.

The following sections provide a more detailed discussion of the data collection and analysis methods appropriate to common AID operations.

Program and Policy Planning. Country Development Strategy Statements (CDSS) and program strategies often analyze development trends in a country or region to identify needs, opportunities, and targets for AID interventions. Such strategic planning relies heavily on representative data on population characteristics and economic conditions. AID Missions rarely collect such data themselves but depend instead on secondary sources -- the agricultural, economic, health, education, and other statistics collected by national and international agencies as part of their regular business.

If existing statistical information is inadequate or incomplete, AID may develop projects to help host governments improve their data collection, analysis, and planning capabilities in particular areas. Sometimes AID Missions will fund surveys themselves, particularly if the Mission needs information on a specific topic -- such as small-scale enterprises -- for which the host government does not routinely collect data. Missions may also commission special baseline surveys to collect representative data on key indicators in particular sectors or regions. However, such surveys are difficult and expensive to implement, and the collection of regional and national statistics remains a natural function of the host government. Special surveys should therefore be funded only when statistically accurate estimates are essential and otherwise unobtainable.

Missions sometimes supplement the statistical data used in strategic planning with information from project evaluations and special studies. These intermediate and case-study data provide more detailed information on the particular problems, populations, and approaches that program and project interventions may address. Whereas statistical data might demonstrate, for example, the ineffectiveness of primary educational institutions, intermediate and case-study data might be more useful in identifying the sources of problems and suggesting

appropriate solutions.

Project Planning. Whereas project identification often begins with an assessment of available statistical information, project planning usually relies more on intermediate and case study data. Intermediate methods can be used to delineate quickly and inexpensively the range of settings and factors that a project should encompass, while also providing baseline data for later project evaluation. Case studies, on the other hand, are more useful in helping project managers understand what project designs fit most effectively into local social, economic, and political settings. Although representative surveys are sometimes conducted during project design, experience indicates that such surveys are difficult to implement, are rarely followed up, and are rarely cost-effective for project planning. Larger or more innovative projects, on the other hand, may warrant the substantial investment in time and resources necessary to conduct rigorous representative surveys as a basis for later evaluation. This is especially true for pilot or demonstration projects that are likely to be replicated extensively.

The data collection and analysis choices made during project planning have major implications for data collection and analysis during project implementation and evaluation. It is therefore very important that project designers develop an overall monitoring and evaluation plan as early as possible. Although this plan may be modified as conditions change, later comparisons will be limited by the data collected earlier.

Project Implementation. During project implementation, data collection and analysis typicallly emphasize routine monitoring of project inputs and outputs. Such monitoring is important not only for project accountability but also to identify key logistical and management problems that must be solved and to collect important data for project evaluation,. Such monitoring should include routine mechanisms for collecting information on service and the achievement of project purposes. This would include comparative data about project performance for different populations, sites, or conditions. Such information is usually collected through carefully designed project record keeping procedures and through special intermediate surveys and case studies.

Program and Policy Evaluation. Like strategic planning, program and policy evaluation relies heavily on statistical data from secondary sources. Program and policy evaluation also may require representative surveys of key social and economic conditions not normally covered by host government surveys. More often, however, intermediate methods can be used to conduct surveys that provide sufficient information on program and policy trends

for most program and policy evaluation purposes.

Project Evaluation. Project evaluations describe how projects perform under actual host country conditions, identify the results projects have achieved, and analyze the factors affecting these results. Intermediate methods can usually provide sufficient comparative data on project performance and results for most evaluation purposes. These intermediate methods often will be supplemented by case studies providing an in-depth view of how projects evolved, what they did and did not achieve, and why. Representative surveys are more likely to be appropriate when used to evaluate projects that provide narrowly defined services, such as particular health treatment techniques, or that represent pilot tests of new intervention approaches.

The design of a final project evaluation is greatly constrained by the kind of information that is available from previous studies, evaluations, and monitoring. Project evaluation is therefore best planned as part of an overall data collection and analysis strategy that begins with project identification.

Table 2 relates the four data collection methods to the kinds of activities or operations being evaluated and indicates which methods are most appropriate to a given type of activity or operation.

2.4 Budgeting Data Collection Activities

Even if the same method is being applied, data collection and analysis costs will vary enormously depending on the project or topic being considered and the type and scale of information needed. A case study, for example, can range from a 1-week investigation of a single organization to multisite comparison of dozens of regional agricultural systems. A representative survey could involve a simple questionnaire mailed to a handful of government officials or a complicated national study of consumer expenditures.

Table 2 Appropriate Methods to Meet Common AID Information Needs

Purpose	Statistical Methods	Intermediate Methods	Case-Study Methods	Secondary Methods
PLANNING				

Policy	XX	XX	-	XX
CDSS/Program	XX	XX	-	XX
Sector	XX	XX	x	XX
Project	x	XX	XX	XX
IMPLEMENTATION	x	XX	XX	XX
EVALUATION				
Policy	XX	x	-	XX
Program	XX	XX	-	XX
Pilot Project	XX	XX	x	XX
Routine Project	-	XX	XX	XX

Note: "XX indicates methods that are usually relevant; "x" indicates methods that are sometimes relevant; "-" indicates methods that are rarely relevant.

The diversity of data collection activities precludes precise guidance on data collection costs. In practice, budgeting is strongly influenced by the availability of funds, and managers rely heavily on the advice of technical experts. The general categories of activity that must be budgeted are, however, described below. More detailed information on the activities characterizing particular data collection methods is in the sample scopes of work contained in later sections.

1. Designing the research. Developing a detailed data collection and analysis design based on the initial scope of work. (The resulting design should delineate the kinds of data to be collected, the sampling or site selection techniques to be employed, the data collection techniques to be used, the number and kind of local staff to be trained, the kind of analysis to be conducted, and so on. AID approval of this design will usually be required before the research is implemented.)

2. Selecting samples and sites. Developing sampling frames and then selecting samples or sites in the field.

3. Developing and testing instruments. Developing

final data collection instruments (e.g., survey questionnaires, interview guides, fieldwork protocols) and pre-testing and revising these instruments as appropriate.

4. Training assistants. Training enumerators, fieldwork assistants, data entry clerks, data processing assistants, and others as required to implement the data collection design, including the development of necessary handbooks and guidebooks.

5. Collecting data. Implementing data collection plans (often an iterative process involving data collection, analysis, identification of new issues, additional data collection, and the like).

6. Processing data. Entering data, transcribing data, ensuring data quality, aggregating data, preparing data tapes, conducting preliminary analyses, and the like.

7. Analyzing data. Analyzing data to answer questions identified in the scope of work and during the course of research. (If information is to be useful, good analysis is essential and it is very important that sufficient resources be allocated for the kind of analysis required. The cost of analysis may be as much or more than the cost of data collection itself.)

8. Preparing reports and deliverables. Preparing final reports and other deliverables. (This is another essential activity that requires significant time and resources and is often underbudgeted.)

9. Communicating and coordinating. Communicating and coordinating among AID/Washington, USAID Missions, host government agencies, sub-contractors, and other interested parties. (If extensive communication and coordination are required, this may involve substantial additional costs.)

3.0 MAIN COMPONENTS OF A SCOPE OF WORK FOR DATA COLLECTION

The final step for managers in planning a data collection activity is to write a scope of work stipulating the types of data to be collected, the study approach to be used, and the content of final reports and other deliverables to be produced under the terms of a contract. One point cannot be emphasized enough: when AID managers fund an activity that produces a data set (i.e., a series of systematic observations or measurements), they should, without exception, obtain a documented, re-usable copy of

that data set. This requires that the data collection contract stipulate that the data set and accompanying documentation will be a deliverable.

All scopes of work for any data collection activity should discuss the following:

1) The background and purpose of the study

2) The questions to be addressed

3) The study approach

4) Special skills required

5) Time frame

6) Reporting requirements

7) Deliverables

Although specific contents will vary depending on the data collection approach followed (see subsequent sections), the general focus of these core components is discussed below.

3.1 Background and Purpose

This section should provide a concise statement of the principal objectives of the project. The section should explain why data are being collected, how data will be used, and who will use them (for example, "project implementation data will be collected for use by a new monitoring and evaluation unit in the Ministry of Agriculture as a basis for project design decisions").

3.2 Study Questions

This section should state unambiguously the major questions to be answered and should communicate clearly to the contractor the specific information needs for which data will be collected. AID staff commonly complain that contractors collect the "wrong" data and answer the "wrong" questions, but often this is because the scope of work did not clearly specify the questions to be answered.

The study questions should be stated with sufficient precision to allow the contractor to determine which data to collect. They should specify the population of interest (what information is required about whom) and the kind of measurement required (presence/absence, rankings, continuous scales, detailed descriptions, and the like). Sometimes, particularly for case-study and

intermediate methods, only the general categories of study questions should be delineated (e.g., the organization of village economies, the relationship of farmers to external markets, beliefs and attitudes affecting contraceptive practices), so that the contractor can retain sufficient flexibility to modify, delete or add specific study questions as knowledge is gained or field conditions dictate. This relies on the contractor's judgement to retain the desired study focus while making additions or changes. If there are any doubts about the contractor's experience, or if the data collection is routine, the study questions should be specifically delineated.

3.3 Study Approach

This section should describe the study's general methodology -- representative, intermediate, case-study, secondary, or a combination -- and provide as much additional guidance as possible. If possible, it should include a discussion of (1) data collection techniques (e.g., informal interviews, direct observation, surveys); (2) units of analysis (e.g., head of households, villages, small businesses); (3) sampling procedures (e.g., area, purposive); (4) data collection instruments (e.g., questionnaires, field notes, recordings); (5) related procedures (e.g., pretesting a questionnaire, assessing existing data); and (6) data processing (computerized and noncomputerized) and data analysis approaches.

The section should also identify likely sources of data (e.g., truckers operating out of central towns, government offices and officials in the project area, village or community leaders). Similarly, information on potentially useful resources (e.g., trained and experienced local interviewers, computer equipment) or likely complications should be cited. If the contractor will work with host country staff, arrangements for this should also be discussed, including the role of counterparts and their responsibilities for data collection decisions in the field.

3.4 Special Skills

This section should define the special skills that the contractor must have to effectively implement the research methodology. Such skills could include educational background, training, field experience, knowledge about the project area, proficiency in the local language, and so on. Experience conducting similar research is usually more important than experience in the specific project area, provided the contractor has the necessary language skills. Familiarity with local social, cultural and economic

organization is, however, a definite plus. The section should also distinguish between desired and mandatory skills, if appropriate.

3.5 Time Frame

This section should specify when the information provided by the study will be needed. If possible, it should include a tentative schedule allocating time among the major data collection and analysis activities. If preliminary data or findings are desired during the study, this should be clearly indicated so that the contractor can plan accordingly.

3.6 Reporting Requirements

This section should specify the frequency and content of the contractor's reports on the progress of the study and on the study's findings. Progress reports are more critical for large-scale data collection activities requiring substantial time (e.g., 6 months or more).

Other reports should be clearly linked to the completion of major data collection activities (e.g., planning, pretesting, fieldwork, preliminary data analysis). These reports should summarize accomplishments to date, including unanticipated difficulties or findings, and should outline plans for subsequent activities. Smaller, quicker data collection efforts (e.g., lasting several months), may not require formal progress reports but may rely instead upon periodic discussions with the contractor.

Althogh reporting requirements should be clearly stipulated, it may be unnecessary to specify precise anaytical techniques, because these will usually be implied by the study questions and study approach and by the nature of the data. Although report formats will vary depending on the data collection approach, the final report should generally be required to include (l) a summary of findings pertaining to the study questions; (2) a brief description of the study methodology; (3) a concise discussion of findings and supporting evidence; and (4) appendixes containing more detailed discussions of methods and procedures, data analysis, and similar material. This section of the scope of work should also state how many copies of the reports will be required, to whom they should be submitted, and in what languages.

3.7 Deliverables

This section should specify all products that the

contractor will deliver to AID or the host country, including the reports discussed above, and should specify to whom they should be delivered. One extremely important deliverable is a documented copy of any data set produced with AID funding. This data can rightly be viewed as the property of the U.S. Government and, with the concurrence of the host country, should be demanded from every contractor collecting data. A usable and fully documented copy of the data set in an appropriate format (machine readable if relevant) should be stipulated as a deliverable, with final payment contingent on meeting this requirement. Other specified deliverables could include copies of data collection instruments, interviewing manuals, maps, charts, or any other pertinent supporting materials that relate to the final report.

4. SCOPES OF WORK FOR REPRESENTATIVE METHODS

4.1. Scopes of Work for Sample Surveys

4.1.1 Background and Purpose of the Study

SUGGESTED WORDING:

"The information obtained from this data collection activity will be used by [specify] to make the following assessments or decisions: [list]."

This section should continue with a description of the study background.

4.1.2 Questions to Address

SUGGESTED WORDING:

"This survey will be designed to provide answers to the following questions: [list specific questions]."

The questions should be as detailed as possible. Rather than generally asking "What is the economic situation in the Northern Province of Sierra Leone?," a series of questions should be used to give the contractor a better understanding of the economic information wanted; for example:

-- What are the major sources of income in the Northern Province?

-- What percentage of the households in the Northern Province are farm households?

-- Of the farm households, what percentage market a

portion of their crops?

-- Does a strong barter economy exist in the Northern Province? If so, what items are used as barter?

-- What is the average annual household income?

-- What are the major categories of household expenditures?

-- What are the major sources of income by gender and age for different household members?

-- What are the major expenditures by gender and age for different household members?

The scope of work should also specifically note AID's policy of collecting gender-disaggregated data.

4.1.3 Study Approach

This section should present information on preferred or mandatory approaches for conducting the survey, including the following:

1. The ultimate unit of analysis (e.g., households, persons, villages, businesses, health facilities)

2. A clear definition of the population of interest

3. Any subgroups for which estimates are desired (e.g., farm households vs. non-farm households, children age 0-4, villages within a 5-mile radius of a health center, electrified vs. nonelectrified businesses, government-operated vs. privately run health facitilities)

4. The anticipated or recommended data collection method (e.g., interviews with heads of households, business owners, farmers in the field)

5. The approximate size of the population of interest, (e.g., number of persons, households, businesses)

6. The type and degree of interaction that the contractor is expected to maintain with specified host country organizations or counterparts while conducting the study

7. The extent to which in-country resources should be used, and a brief description of known resources (e.g., trained interviewers, analysts and data processors, research organizations, availability

of computers).

This section should also list the specific tasks for which the contractor will be responsible.

SUGGESTED WORDING:

"In conducting this study, the contractor will be responsible for performing, or arranging for and monitoring the performance of, the following tasks:

1. Discuss information needs in detail with AID/Washington staff, USAID staff, and host country implementing agency.

2. Develop analytical plan.

3. Develop tabulation formats to show how final data would be presented.

4. Revise tabulation formats based on comments from AID/Washington, USAID, host country implementing agency.

5. Design data collection instruments.

6. Design sampling plan.

7. Develop plan for processing the data.

8. Write instruction manuals and interviewer manuals for the data collection instruments and field procedures.

9. Recruit and train interviewers for a pilot test.

10. Select units for the pilot test.

11. Conduct pilot test.

12. Modify data collection instruments, manuals, and procedures based on pilot test results.

13. Design procedures for coding, manual editing, and machine editing the data.

14. Select survey sample.

15. Develop specifications for noninterview and item nonresponse adjustments to the data.

16. Arrange for processing of the data.

17. Recruit and train staff for coding and editing the data.

18. Recruit and train interviewers and field

supervisors.

19. Conduct survey fieldwork.

20. Monitor coding, editing, and processing activities.

21. Analyze data and prepare final report as detailed under 'Reporting Requirements'.

22. Prepare and deliver other items as detailed under 'Deliverables.'"

4.1.4. Special_Skills

SUGGESTED WORDING:

[Words in brackets indicate options.] "Contractor must have experience in the design and implementation of [large-scale] sample surveys [in developing countries, Africa, Asia, other]. This includes experience in designing data collection instruments, training and supervising interviewers and other survey staff, designing and implementing sampling plans, developing and implementing data processing plans, and analyzing and presenting survey data. Experience in [health, agriculture, energy, other] surveys is preferred. [Contractor must also have (specify) language proficiency.]"

4.1.5. Time Frame

SUGGESTED WORDING:

"The contractor shall submit a copy of the draft report of results, including a set of tabulations, to AID on or before [date]. The final report shall be submitted to AID on or before [date]."

4.1.6. Reporting Requirements

SUGGESTED WORDING:

"By or before the end of the first [number] days of the contract, the contractor shall submit [number] copies of the proposed analysis, including tabulation plans, to AID for review and comment. By or before the end of the first [number] days of the contract, the contractor shall submit a copy of the draft questionnaire and a realistic schedule showing expected start and/or completion dates for, at a minimum, the activities listed under 'Study Approach.' Thereafter, the contractor shall submit monthly progress reports

indicating progress toward completion of those activities.

The contractor shall submit a copy of the draft report of results, including a set of tabulations, to AID on or before [date]. The final report shall be submitted to AID on or before [date]. The final report will include sections covering the following topics:

1. Purpose of the survey and intended users of the survey data

2. Questions that the survey was designed to answer

3. General description of the study approach and a summary of the major findings

4. Detailed discussion of the methodology

   - Description of the study design

   - Description of the sample design

   - Data collection methodology

   - Pilot test

   - Problems encountered in conducting the fieldwork

   - Data processing methodology

   - Problems encountered

   - Statistical analysis of the survey data

5. Detailed survey results (incuding appropriate tables)"

4.1.7. Deliverables

The scope of work should specify the following product requirements, in addition to the reports specified previously:

1. Survey_documents. All questionnaires, manuals training guides, and the like should be specified for delivery to AID after the data collection phase is completed.

SUGGESTED WORDING:

"In addition to the progress reports and final report discussed under 'Reporting Requirements' the contractor shall deliver the documents listed below at the conclusion of the data collection:

-- The final questionnaire (indicate number of copies and to whom they were distributed)

-- The final clerical, interviewer and supervisor manuals (indicate number of copies and to whom they were distributed)

-- The final training guides (indicate number of copies and to whom they were distributed)

-- The final hand-edit and coding procedures not covered in the manuals (indicate number of copies and to whom they were distributed)

-- The final computer-edit and tabulation specifications (indicate number of copies and to whom they were distributed)"

2. Microdata set. If AID has the host country's concurrence for obtaining a copy of the microdata set, the suggested wording provided in quotation marks below should be used in the scope of work. If AID will not obtain a copy of the microdata set but the host country will, the word "AID" should be replaced with the words "host country."

If no computer or other machine processing is to be performed by the contractor, the following should be specified:

SUGGESTED WORDING:

"The contractor shall give the manually edited data collection forms to AID on or before [date -- this will usually be a date close to the conclusion of the activity but prior to the reimbursement of the contractor]. This information shall be accompanied by a document in English (1) identifying information on each form and (2) describing data items collected for each individual and/or facility and the possible answers."

If any computer processing of the microdata set is being done by the contractor, the following should be specified:

SUGGESTED WORDING:

"The contractor shall provide a copy of the microdata set on [punch cards, magnetic tape, or disk] to AID on

or before [date -- this will usually be a date close to the conclusion of the activity but prior to reimbursement of the contractor]. This microdata set [on punch cards, magnetic tape, or disk] must be accompanied by the following documentation:

-- Name of the project and country or countries from which the data were collected

-- Dates on which the data were collected (If data were collected in more than one country, the data must be clearly associated with the country name.)

-- Name and affiliation of person to contact if there are any questions

-- Record length in characters (if variable, specify the largest record length)

-- Identification of each item in the record, including source codes (if any) used to identify each item and record location (layout, field-by-field); if source codes are not used, field names and lengths for each item; if prepackaged software is used, the codes for each item and description of the information they represent (such as 1-Female, 2-Male, 9-Unknown); acceptable range for items whose values represent measurements such as weight, length, hectares

-- If on tape, specification of density and whether labeled or unlabeled (serial number, if labled)

-- Data format (binary, packed decimal, character; if character, whether ASCII or EBCDIC)

-- If the records are packed, instructions on how to unpack them

-- All edit procedures used and the resulting changes in data, and all imputations made and the calculations and reasons for the imputations

For any information collected but not included in the microdata set, provide (a) a description of information not included (such as number of questionnaires or actual items excluded) and (b) the reasons for exclusion for each item and/or category of information."

4.2 Scopes of Work for Censuses

As mentioned in Section 2, a census can range from a countrywide to a village-level effort, and the scopes of work for these activities will be completely different. In

the case of the country-wide census, the scope of activities would probably involve technical assistance to the national statistical agency on specific portions of the census. It is difficult to specify guidelines for establishing the scope of work for technical assistance on the national census because the assistance could be in any or all of a great number of activities. It could include assistance in developing specific objectives for the census, in the census publicity campaign, in staff planning, in mapping, in data collection, in data processing, in pretesting, in quality control, in operational control and reporting, in budget documentation, in developing sampling frames, or in the analysis and use of census data. In developing or reviewing a scope of work of this kind, it would be helpful to consult POPSTAN, a seven-volume case study of population and housing censuses developed by the U.S. Bureau of the Census as a training tool for use in developing countries. POPSTAN lists and explains all major issues of the census operation that should be considered in a scope of work for technical assistance.

4.2.1 Background and Purpose of the Study

This section should be the same as for the sample survey (see Section 3.1.1).

4.2.2. Questions to Address

This section should be the same as for the sample survey (see Section 3.1.2).

4.2.3. Study Approach

This section should state that this is to be a census (e.g., of households, persons, villages, businesses, health centers) to obtain data (e.g., by interview, observation) and that information for the total population and specified subgroups (e.g., children age 0-4, women age l5-44, farm households and nonfarm households, businesses with over 25 employees, villages within five miles of a health center) must be obtained. In addition, this section should state the specific tasks for which the contractor will be responsible.

SUGGESTED WORDING:

"In conducting this study, the contractor will be responsible for performing, or arranging for and monitoring the performance of, the following tasks:

1. Discuss information needs in detail with AID staff, USAID staff, and host country implementing agency.

2. Develop analytical plan.

3. Develop tabulation formats to show how final data would be presented.

4. Revise tabulation formats based on comments from AID/Washington, USAID, host country implementing agency.

5. Design data collection instruments.

6. Design listing or mapping and quality control procedures, based on administrative divisions within study area.

7. Develop plan for processing the data.

8. Write instruction manuals, interviewer manuals, and the like for the data collection instruments and field procedures.

9. Design the publicity campaign.

10. Recruit and train interviewers for a pilot test.

11. Select units for the pilot test.

12. Conduct pilot test.

13. Modify data collection instruments, manuals, and procedures based on pilot test results.

14. Design procedures for coding, manual editing, and machine editing of the data.

15. Develop specifications for noninterview and item nonresponse adjustments to the data.

16. Arrange for processing the data.

17. Recruit and train staff for coding and editing the data.

18. Recruit and train interviewers and field supervisors.

19. Conduct fieldwork.

20. Monitor coding, editing, and processing activities.

21. Analyze data and prepare final report as detailed

under 'Reporting Requirements.'

22. Prepare and deliver other items as detailed under 'Deliverables.'"

This section should also indicate whether the contractor is expected to train or assist host country counterparts during the implementation of the study. A brief paragraph also should discuss the capabilities or previous experience of the intended group of counterparts, and any other information (such as the existence of in-country trained interviewers or the location of existing computer facilities) that would be useful to the contractor.

4.2.4 Special Skills

SUGGESTED WORDING:

"Contractor must have experience in the design and implementation of censuses [in developing countries, in Africa, Asia, other]. This includes experience in designing data collection instruments, training and supervising interviewers and other survey staff, designing and implementing listing procedures, developing and implementing data processing plans, and analyzing and presenting survey data. Experience in [housing and population, agriculture, business, other] is preferred. [Contractor must also have (specify) language proficiency.]"

4.2.5 Time Frame

SUGGESTED WORDING:

"The contractor shall submit a copy of the draft report of results, including a set of tabulations, to AID on or before [date]. The final report shall be submitted to AID on or before [date]."

4.2.6 Reporting Requirements

SUGGESTED WORDING:

"By or before the end of the first [number] days of the contract, the contractor shall submit [number] copies of the proposed analysis plan, including tabulation plans, to AID for review and comment. By or before the end of the first [number] days of the contract, the contractor shall submit a copy of the draft questionnaire and a realistic schedule showing expected

start and completion dates for, at a minimum, the activities listed under 'Study Approach.' Thereafter, the contractor shall submit monthly progress reports indicating progress toward completion of those activities. The contractor shall submit a copy of the draft report of results, including a set of tabulations, to AID on or before [date]. The final report shall be submitted to AID on or before [date]. It shall include sections covering the following topics:

1. Purpose of the census and intended users of the census data

2. Questions that the census was designed to answer

3. General description of the study approach and a summary of the major findings

4. Detailed discussion of the methodology, including descriptions of the study design, data collection methodology, pilot test, fieldwork problems, data processing methodology and problems encountered, statistical analysis techniques

5. Detailed census results (including appropriate tables)"

4.2.7 Deliverables

The scope of work should specify the following products in addition to the reports specified in 4.2.6.

1. Documents. All questionnaires, manuals, training guides, and the like should be specified for delivery to AID after the data collection phase is completed.

SUGGESTED WORDING:

"In addition to the progress reports and final report discussed under 'Reporting Requirements,' the contractor shall deliver the documents listed below at the conclusion of the data collection:

-- The final questionnaire (indicate number of copies and to whom they were distributed)

-- The final listing and/or mapping materials

-- The final clerical, interviewer, and supervisor manuals (indicate number of copies and to whom they were distributed)

-- The final training guides (indicate number of copies and to whom they were distributed)

-- The final hand-edit and coding procedures not covered in the manuals (indicate number of copies and to whom they were distributed)

-- The final computer-edit and tabulation specifications (indicate number of copies and to whom they were distributed)

2. Microdata_set. If AID has the host country's concurrence for obtaining a copy of the microdata set, the suggested wording provided in quotation marks below should be used in the scope of work. If AID will not obtain a copy of the microdata set, but the host country will, the word "AID" should be replaced with the words "host country."

If no computer or other machine processing is to be performed by the contractor, the following should be specified:

SUGGESTED WORDING:

"The contractor shall give the manually edited data collection forms to AID on or before [date -- this will usually be a date close to the conclusion of the activity but prior to the reimbursement of the contractor]. This information shall be accompanied by a document in English (1) identifying information on each form, and (2) describing data items collected for each individual and/or facility and the possible answers. (Note all answers to all open-ended questions must be provided in English.)"

If any computer processing of the microdata set is being done by the contractor, the following should be specified:

SUGGESTED WORDING

"The contractor shall provide a copy of the microdata set on [punchcards, magnetic tape, or disk] to AID on or before [date--this will usually be a date close to the conclusion of the activity but prior to reimbursement of the contractor]. This microdata set on [punch cards, magnetic tape, or disk] must be accompanied by the following documentation:

-- Name of the project and country or countries from which the data were collected

-- Dates on which the data were collected (If data were collected in more than one country, the data must be clearly associated with the country name.)

-- Name and affiliation of person to contact if there are any questions.

-- Record length in characters (if variable length, specify the largest record length)

-- Identification of each item in the record, including source codes (if any) used to identify each item or record location (layout, field-by-field); if source codes are not used, field names and lengths for each item; if prepackaged software is used, the codes for each item and description of the information they represent (such as l-Female, 2-Male, 9-Unknown); acceptable range for items whose values represent measurements such as weight, length, hectares

-- If on tape, specification of density, whether labeled, unlabeled (serial number, if labelled)

-- Data format (binary, packed decimal, character; if character, whether ASCII or EBCDIC)

-- If the records are packed, instructions on how to unpack them

-- All edit procedures used and the resulting changes in data, and all imputations made and the calculations and reasons for the imputations

For any information collected but not included in the microdata set provide a description of information not included, such as number of questionnaires or actual items excluded and the reason for exclusion for each item and/or category of information.

5. SCOPES OF WORK FOR INTERMEDIATE METHODS

5.1 Purpose of the Study

This section should describe the purpose of the proposed data collection activity, how the data will contribute to project objectives, how the data will be used, and who will use them.

5.2 Questions to Address

The section should describe the questions being addressed as clearly and thoroughly as possible. The specific questions that the data will answer should be stated in concise, unambiguous language. The individuals, communities, or other entities that constitute the

population of interest should also be defined. AID's policy of collecting gender-disaggregated data should be specifically noted.

Intermediate methods can be used to answer questions similar to those answered through representative methods, although estimates of population characteristics will be rougher and the use and interpretation of data collected through intermediate methods will be somewhat more limited. The severity of these restrictions will vary according to the specific research design and data collection procedures used. Generalizations based on intermediate methods will also be more speculative than those based on statistical sampling. These limitations should be recognized when study questions are formulated.

Intermediate methods are usually used for comparisions among population subgroups and the scope of work should carefully specify key factors that will serve as the basis for such comparisons. If, for example, comparisons are desired relating ethnic differences or farming characteristics to project results, this should be clearly explained in this section.

5.3 Study Approach

Intermediate methods encompass a wide range of alternatives between representative and case-study approaches. At one end of the spectrum are intermediate methods that collect statistically representative data for particular population subgroups; at the other end are methods that simply extend case-studies by collecting comparable data from a larger number of sites.

Intermediate methods generally require a less rigid study approach than representative methods, and contractors should retain some flexibility to adapt their data collection strategy to conditions encountered in the field. The approach section of the scope of work should specify the general kinds of data and comparisons needed, but should also require the contractor to do the following:

1. Discuss information needs and data collection techniques with AID/Washington, USAID, and host country officials.

2. Develop a final study plan based on these discussions that includes a description of the study's comparative design, data sources, case selection criteria, data collection techniques, time estimates, staff, logistics, analysis, and other related requirements.

3. Develop plans for participation by host country

counterparts given their capabilities and training needs and AID and host government goals.

4. Document field procedures with sufficient clarity that they could be replicated by another researcher.

5. Discuss the limitations of the method used and the data collected.

5.4 Special Skills

This section should specify the skills and experience necessary for collecting the type of data described above. This would typically include the following requirements:

1. Training and experience in data collection and analysis that demonstrates a sound understanding of the principles of research methodology combined with a capability for modifying or accomodating those standards to the constraints of the project and field conditions

2. Knowledge of a variety of data collection techniques including formal and informal interviewing, purposive sampling, on-site observation, use of official records, and the like

3. Experience with organizing and using various types of data for analytic purposes

4. Substantive training or experience in the study topic

5. Knowledge about social, cultural and economic organization in the project area

6) Language proficiency (if applicable)

5.5 Time Frame

This section of the scope of work should indicate the allotment of time for each of the following:

1. Initial planning and design

2. Data collection in the field

3. Data analysis and report production

The time frame should be sufficient for an initial review of pertinent background materials and for later data

verification and cross-checking (if possible).

5.6 Reporting Requirements

This section should indicate the timing and content of the analysis plan, progress reports, and the final report.

SUGGESTED WORDING:

"Within the first [number] days of the contract, the contractor shall prepare a detailed plan of analysis covering research design, data sources, data collection techniques (including steps to be taken to verify data and maintain objectivity), case selection criteria, logistics, resource and support requirements, and a tentative time schedule for completing the study. This plan will be submitted to [USAID, host country] staff, and the contractor will meet with the appropriate staff to discuss and modify the plan. The contractor will proceed with implementation only after receiving concurrence on the plan from [USAID, host country, other].

The contractor shall inform [USAID, host country] staff when each stage of the study is started and completed and will also notify [USAID, host country] of delays that prevent completion of the final report by the due date.

[Number] copies of the final report in [languages] will be submitted to [specify] on or before [date], and will include the following:

1. An executive summary of key findings pertaining to the study questions

2. A brief description of the methodology used

3. A concise but thorough discussion of study findings, including supporting evidence

4. An annex that describes in detail the research design, sampling or case selection procedures, data collection procedures, steps taken to ensure data objectivity and validity, and any known problems or shortcomings of the study"

5.7 Deliverables

Other deliverables, in addition to the analysis plan, progress reports, and final reports, will vary depending on the specific method and design selected. Generally, data

from informal surveys should be delivered, as well as copies of qualitative field notes. The contractor should take care, however, to ensure the anonymity of individuals providing data, especially where political or other sensitive matters are addressed. In general, the following should be specified as a deliverables:

1. Copies of informal survey and interview data, including documentation of how respondents were selected (see Section 4.1.7)

2. Copies of data forms, interview guides, and fieldwork protocols

3. Maps of the study location showing villages in which data were collected

4. Identification of information gaps remaining and possible means for obtaining additional information

6. SCOPES OF WORK FOR CASE-STUDY METHODS

6.1 Background and Purpose of the Study

This section should describe the project or other activity to which the case-study will contribute, including why the study is being conducted, who will use the information obtained, and how the information will be used.

6.2 Questions to Address

This section should clearly state the questions that the study is intended to answer. In general, it is not necessary, and in many instances not possible, to be as precise and specific about the study questions as with other approaches, but the major categories of information needed should be specified. In general, case-study methods are more exploratory and more iterative than other approaches. However, the scope of work should specifically note AID's policy of collecting data that are disagreggated by gender.

The limits of case-study methods should also be considered when this section of the scope of work is written. Questions requiring precise estimates of large, diverse populations should be avoided. Rather, the study questions should focus on the specific category, group or organization of which the selected case (or cases) is indicative.

6.3 Study Approach

A key element in a case-specific study is how the cases are selected. This will vary depending on the purpose of the study and the kind of information needed, but cases are generally selected to be typical of some larger class (e.g., communities with particular ethnic groups). Two or more contrasting cases might also be selected, for example villages with different ethnic compositions. Case studies also may focus on atypical examples -- very successful businesses or particularly productive communities. Information about why a particular case is different can provide useful insights for project design and program planning. In short, the rationale for case selection should be given particular attention in this section.

A variety of data sources and data collection techniques can be used in case-study methods, ranging from the analysis of existing secondary data, to observation and informal interviewing, to statistically representative surveys (and statistically rigorous comparisons) within case boundaries. Sometimes appropriate data collection techniques can be specified in advance, but the professional judgment of the contractors in the field should be relied on as well.

The scope of work should clearly specify that the contractor will discuss information needs throroughly with USAID and host country staff and that the contractor will fully document the case selection procedures, data sources, data collection techniques, and analysis methods used. This section also should state whether the contractor is expected to work with host country counterparts and if so, how responsibility for conducting fieldwork should be divided.

6.4 Special Skills

The section should indicate any special skills that are required, such as the following:

l. Appropriate training and field experience in conducting case-study research

2. Training and experience with a variety of data collection techniques relevant to case-specific studies (e.q., participant observation, informal interviewing, use of existing data and records)

3. Substantive training or experience in the subject area of the study and knowledge of the social, cultural, and economic organization of the study area

4. Language proficiency (if applicable)

6.5 Time Frame

This section should specify the time the contractor should spend on the following tasks:

1. Reviewing background material, selecting a site(s), and planning the research

2. Collecting data in the field

3. Analyzing the data and preparing a final report

The due date for the final report should also be stated.

6.6 Reporting Requirements

This section should specify the contents of the reports that are to be produced and their submission dates.

SUGGESTED WORDING (for an informal progress report):

"Within the first [number] days of the contract, the contractor shall discuss with [USAID, host country] staff plans for conducting the study, including case selection and rationale, probable data sources and data collection activities, logistics and staff support, and a tentative outline for the final report."

The scope should specify that the contractor should inform USAID and the host country when each stage of the study is begun and completed, and also report on any problems which will delay completion of the final report.

SUGGESTED WORDING (for the final report):

"[Number] copies of a final report in [languages] will be submitted to [USAID, host country] on or before [date]. The report should include the following:

l. Executive summary of principal conclusions and findings pertaining to the study questions stated in the scope of work

2. A brief discussion of case selection and data collection methodology (a more detailed presentation of methodological issues should be included as an appendix)

3. A thorough discussion of study findings, including supporting evidence such as tables or maps"

6.7 Deliverables

In addition to final and progress reports, the scope of work may specifiy additional deliverables such as the following:

1. Copies of field notes (edited, if necessary to maintain the anonymity of key informants)

2. Data sets and documentation from intracase surveys or other standardized measurements or observations

3. Copies of interview protocols, census or survey questionnaires (intracase), and the like

4. Fieldwork protocols and other procedures to ensure comparability and objectivity if comparative case studies have been conducted

7. SCOPES OF WORK FOR SECONDARY ANALYSES

Every data collection activity has a planning stage that precedes the actual collection and analysis of information. Such planning is particularly important for secondary analysis and requires proportionally more time. Before conducting a secondary analysis, a researcher must locate data sources, assess their quality and relevance, ensure access to them, and address any problems of confidentiality. An analysis plan based upon this initial assessment must then be developed before the study can be implemented. The scope of work for secondary analysis should clearly reflect these distinct planning and implementation phases.

7.1 Background and Purpose of the Study

This section should describe the purpose of the data collection activity, the reasons it is being undertaken, and who will use it. The secondary analysis, for example, might seek to develop national economic performance indicators to assist a mission in CDSS preparation. Or, the study might sample operational records (such as records of health clinic clients) to help a host government agency monitor or evaluate service delivery or project performance.

7.2 Study Questions

This section should clearly and concisely state the questions the study will answer and the data that will be used to answer them. This should include the following (if applicable):

1. The specific population for which the data are needed, and the AID policy requirement to disaggregate data by gender whenever possible

2. The specific indicators to be developed to measure key conditions or characteristics of the population of interest

3. The period of time the data should cover

4. The format in which the data and analysis should be presented (e.g., discursive reporting vs. tables of indicators or other measures)

Assuming the necessary data are available, secondary analyses can be used to answer the same kinds of questions as any of the other data collection approaches.

7.3 Study Approach

This section should specify, to the extent possible, appropriate data collection techniques; possible data sources; criteria or standards for assessing the quality of the data (e.g., approximate indicators, exact counts); the level of agregation needed (e.g., local, district, or regional); and the specific population or subgroups of interest. The section should also indicate local resources (e.g., research assistants, computers) that may be available, as well as known or potential constraints (e.g., logistical difficulties, inaccessibility of host country data). The specific kinds of analysis wanted should be specified here to the extent possible. If the contractor will work with host country counterparts, this section should also explain how collaboration will be arranged and responsibilities allocated.

In most cases it will be possible to specify precise data collection and analysis methods in advance. This will usually be accomplished during the study's initial planning phase, and will rely on the professional judgment and technical qualifications of the contractor. However, the scope of work should specify that a more detailed analysis plan will be developed and approved before implementation proceeds.

Although scopes of work for secondary analyses vary widely, the contractor will usually perform the following

tasks:

l. Identify and assess the relevance, quality, and availability of data from sources such as host country ministries and government agencies, international donors, and private sector organizations.

2. Identify and assess the relevance, quality, and availability of data from sources such as

   -- Published studies, reports, statistics, and census and survey findings

   -- Unedited (raw) data from surveys and studies available from questionaires or computerized files
   -- Administrative or operational records maintained by service organizations (e.g., rural banks, health clinics)

   -- Informal sources, such as field notes or diaries maintained by field workers.

3. Discuss how data quality was assessed (criteria for reliability and validity, comparisons with data from alternative sources, internal consistency, and so on).

4. Estimate the time and resources needed to reanalyze data to meet the requirements of the study.

5. Document the procedures for collecting and organizing the data.

6. Develop appropriate formats (e.g., tables) for presenting study findings.

7. Evaluate host country capabilities for participating in the study, including human and financial resources, as appropriate.

7.4 Special Skills

Conducting secondary analysis of existing data requires knowledge about sources of reliable data and resourcefulness in discovering and gaining access to less known data. Other special skills include the following:

l. Experience with data collection and analysis activities in developing countries

2. Experience with secondary analysis of data of

uneven quality from various sources

3. Experience with the particular kind of secondary analysis envisioned (e.g., content analysis, case survey, meta-analysis, statistical surveying)

4. Training or experience that demonstrates substantive knowledge of the relevant subject area

5. Language proficiency (if applicable)

7.5 Time Frame

This section should clearly state when data are needed and what the priorities are, if any. Although it will be difficult to determine the timeframe without prior knowledge of data sources, an estimate should be provided. This can then be revised when the initial planning and design phase is completed. If the data prove more difficult to obtain and analyze than envisioned, study goals may have to be simplifed or the time frame extended after work begins.

7.6 Reporting Requirements

The scope of work will normally specify a detailed analysis plan as an important early reporting requirement.

SUGGESTED WORDING:

"The contractor shall submit a copy of a draft report of the results of the preliminary investigation of data sources and data quality and a proposed plan of analysis to [USAID, host country] staff on or before [specific number of weeks after initiating work] that include the following:

l. A list of available data sources stating (a) the kind of data provided; (b) the location and accessibility of the data; and (c) a preliminary evaluation of the quality and reliability of the data, including the criteria or procedures used to make the assessment

2. A plan of analysis that discusses how the quality of the data used for the study will be assessed and how the data will be collected, organized, and analyzed to meet specific information needs specified in the scope of work.

3. An estimate of time and resources required to complete the study, including counterpart

participation (if applicable)"

The content and timing of progress or other periodic reports should also be delineated in this section. Larger studies might require a report of preliminary findings that would include the following:

l. A list of relevant data sources and an assessment of the quality of available data

2. A list or discussion of preliminary study findings

3. Preliminary tables supporting study findings (if applicable)

The final report should include the following components:

1. An executive summary of the study purpose and findings

2. A brief description of the study approach, data collection procedures, data quality, and analysis methods, and any problems encountered (more detailed descriptions should be provided in a methodological appendix)

3. A detailed discussion of study findings, including supporting data and analysis (e.g., tables)

The number of copies, language required, and distribution for all reports should also be specified in this section.

7.7 Deliverables

This section should list all products the contractor is required to produce and deliver to AID or the host country. These deliverables include the following:

l. Progress reports, preliminary findings reports, and the final report

2. A list of all data sources investigated and an assessment of the data they contain

3. Documentation of the procedures used to assess the quality of the data used for the study

4. A list of processed and unprocessed data sets either identified or used for the study

5. If the contractor developed a new data set from these sources, a copy of the data set with supporting documentation